IN THE CLAIMS

1.   (currently amended) A wireless communication system that forms a network in an autonomous distributed manner without ~~a relationship of~~ a specific controlling station ~~and a controlled station~~, the wireless communication system comprising:

a transmitting-side or receiving-side communication apparatus~~,~~ which attempts to perform communication with a guaranteed bandwidth, issues a notification indicating a setting of a bandwidth guaranteed period in a communication range and that another communication apparatus that receives the notification does not perform a communication operation in the bandwidth guaranteed period.

2.   (previously presented) The wireless communication system according to claim 1, wherein the transmitting-side or receiving-side communication apparatus describes information regarding the bandwidth guaranteed period in beacon information transmitted for each predetermined frame period.

3.   (currently amended) The wireless communication system according to claim 2, wherein the receiving-side communication apparatus creates timing utilized for a bandwidth-guaranteed communication, in a pseudo manner, ~~to~~ that has~~ve~~ a same state as timing of transmitting a beacon of its own and notifies the timing utilized for the bandwidth-guaranteed communication.

4.   (currently amended) The wireless communication system according to claim 1, wherein, in a period in which ~~any~~ no communication apparatus has ~~not~~ set a guaranteed bandwidth, each communication apparatus performs random access based on a collision avoidance operation that starts transmission after detecting that no transmission is performed from another communication apparatus.

5.   (currently amended) The wireless communication system according to claim 1, wherein the transmitting-side or

receiving-side communication apparatus sets a reservation period in _its_ own frame period and performs communication with a guaranteed bandwidth by utilizing the reservation period.

6.   (currently amended) The wireless communication system according to claim 1, wherein each communication apparatus collects beacon information from neighboring communication apparatuses~,~ obtains information regarding bandwidth guaranteed periods~,~ and does not set, as its own bandwidth guaranteed period, a period that is set as bandwidth guaranteed periods by the neighboring communication apparatuses.

7.   (currently amended) The wireless communication system according to claim 1, wherein the transmitting-side or receiving-side communication apparatus collects beacon information from neighboring communication apparatuses~,~ obtains information regarding bandwidth guaranteed periods~,~ and sets, as its own bandwidth guaranteed period, a period that is not set as the bandwidth guaranteed periods by the neighboring communication apparatuses.

8.   (previously presented) The wireless communication system according to claim 1, wherein the transmitting-side or receiving-side communication apparatus obtains information regarding a bandwidth guaranteed period from a communication apparatus at another end of communication and sets, as its own bandwidth guaranteed period, a period that is not set as bandwidth guaranteed periods by neighbors of the communication apparatus.

9.-16.   (cancelled)

17.   (currently amended) A wireless communication apparatus that performs a wireless communication operation in an autonomous distributed manner without ~a relationship of a~ specific controlling station ~and a controlled station~, the wireless communication apparatus comprising:

5

communicating means for transmitting/receiving a wireless signal within its own communication range;

bandwidth-guaranteed-period setting means for requesting, within its own communication range, setting of a bandwidth guaranteed period in which a bandwidth is guaranteed for said wireless communication apparatus; and

communication controlling means for executing a bandwidth-guaranteed communication in response to an arrival of its own bandwidth guaranteed period.

18. (currently amended) The wireless communication apparatus according to claim 17, ~~wherein~~ further comprising:

means for storing a bandwidth-guaranteed-period setting notification received from another wireless communication apparatus,

wherein the bandwidth-guaranteed-period setting means sets its own bandwidth guaranteed period while avoiding a bandwidth guaranteed period that is already set by the another wireless communication apparatus, and the communication controlling means does not perform a communication operation in the bandwidth guaranteed period that is set by the another communication apparatus.

19. (currently amended) The wireless communication apparatus according to claim 17, wherein, in a period in which ~~any~~ no communication apparatus has ~~not~~ set a bandwidth guaranteed period, the communication controlling means performs random access based on a collision avoidance operation that starts transmission after detecting that no transmission is performed from another wireless communication apparatus.

20. (currently amended) The wireless communication apparatus according to claim 17, wherein the bandwidth-guaranteed-period setting means describes information regarding the bandwidth guaranteed period in a beacon transmitted for each predetermined frame period and transmits the beacon to ~~thereby~~

inform, within its own communication range, about the setting of the bandwidth guaranteed period.

21. (previously presented) The wireless communication apparatus according to claim 20, wherein the bandwidth-guaranteed-period setting means sets its own bandwidth guaranteed period by avoiding the reception timing of a beacon.

22. (currently amended) The wireless communication apparatus according to claim 20, wherein the bandwidth-guaranteed-period setting means creates timing utilized for a bandwidth-guaranteed communication in the frame period, in a pseudo manner, ~~to~~ that has~~ve~~ a same state as timing of transmitting its own beacon and notifies of the timing utilized for the bandwidth-guaranteed communication.

23. (previously presented) The wireless communication apparatus according to claim 17, wherein the bandwidth-guaranteed-period setting means sets a reservation period for performing communication with a guaranteed bandwidth in its own frame period and the communication controlling means performs communication with a guaranteed bandwidth in its own reservation period.

24. (currently amended) The wireless communication apparatus according to claim 17, wherein the bandwidth-guaranteed-period setting means of each wireless communication apparatus collects beacon information from neighboring wireless communication apparatuses~~,~~ obtains information regarding bandwidth guaranteed periods~~,~~ and does not set, as its own bandwidth guaranteed period, a period that is set as ~~its~~ a bandwidth guaranteed periods by the neighboring wireless communication apparatuses.

25. (currently amended) The wireless communication apparatus according to claim 17, wherein the bandwidth-guaranteed-period setting means collects beacon information from neighboring communication apparatuses~~,~~ obtains information

regarding bandwidth guaranteed periods~,~ and sets a period that is not set as bandwidth guaranteed periods by the neighboring communication apparatuses to own bandwidth guaranteed period.

26. (previously presented) The wireless communication apparatus according to claim 17, wherein the bandwidth-guaranteed-period setting means obtains information regarding a bandwidth guaranteed period from a communication apparatus at another end of a communication and sets a period that is not set as bandwidth guaranteed periods by neighbors of the wireless communication apparatus to the own bandwidth guaranteed period.

27.-34. (cancelled)

35. (currently amended) A wireless communication method for performing a wireless communication operation in an autonomous distributed manner without ~a relationship of~ a specific controlling station~ and a controlled station~, the wireless communication method comprising:

~a bandwidth-guaranteed-period setting step of~ issuing, within its own communication range, a notification indicating a setting of a bandwidth guaranteed period in which a bandwidth is guaranteed; and

~a communication controlling step of~ executing a bandwidth-guaranteed communication in response to an arrival of its own bandwidth guaranteed period.

36. (currently amended) The wireless communication method according to claim 35, further comprising: ~a step of~

storing a bandwidth-guaranteed-period setting notification received from another communication apparatus, ~and~

wherein the step of issuing the notification indicating the setting of the bandwidth-guaranteed-period includes setting ~step sets~ its own bandwidth guaranteed period while avoiding a bandwidth guaranteed period that is already set by another communication apparatus, and

8

the step of executing bandwidth-guaranteed communication controlling step does not perform a communication operation in the bandwidth guaranteed period that is set by the another communication apparatus.

37. (currently amended) The wireless communication method according to claim 35, wherein, in a period in which any no communication apparatus has not set a bandwidth guarantee, random access based on a collision avoidance operation, which starts transmission after detecting that no transmission is performed from another communication apparatus, is performed in the communication controlling step.

38. (currently amended) The wireless communication method according to claim 35, wherein, in the step of issuing the notification indicating the setting of the bandwidth-guaranteed-period setting step, information regarding the bandwidth guaranteed period is described in a beacon transmitted for each predetermined frame period and the beacon is transmitted to thereby inform, within its own communication range, about the setting of the bandwidth guaranteed period.

39. (currently amended) The wireless communication method according to claim 38, wherein, in the step of issuing the notification indicating the setting of the bandwidth-guaranteed-period setting step, its own bandwidth guaranteed period is set by avoiding the reception timing of the beacon.

40. (currently amended) The wireless communication method according to claim 38, wherein, in the step of issuing the notification indicating the setting of the bandwidth-guaranteed-period setting step, timing utilized for a bandwidth-guaranteed communication in a frame period is created in a pseudo manner to have a same state as timing of transmitting its own beacon and a notification indicating the timing utilized for the bandwidth-guaranteed communication is issued.

41. (currently amended) The wireless communication method according to claim 35, wherein~ in the step of issuing the notification indicating the setting of the bandwidth-guaranteed-period— setting step, a reservation period for performing communication with a guaranteed bandwidth is set in own frame period, and~ in its the step of executing bandwidth-guaranteed communication— controlling step, communication with a guaranteed bandwidth is performed in the reservation period.

42. (currently amended) The wireless communication method according to claim 35, characterized in that, wherein in the step of issuing the notification indicating the setting of the bandwidth-guaranteed-period setting step of each communication apparatus, beacon information is collected from neighboring communication apparatuses, information regarding bandwidth guaranteed periods is obtained, and a period that is set as bandwidth guaranteed periods by the neighboring communication apparatuses is not set as its own bandwidth guaranteed period.

43. (currently amended) The wireless communication method according to claim 35, characterized in that, wherein in the step of issuing the notification indicating the setting of the bandwidth-guaranteed-period setting step of a transmitting-side or receiving-side communication apparatus, beacon information is collected from neighboring communication apparatuses, information regarding bandwidth guaranteed periods is obtained, and a period that is not set as the bandwidth guaranteed periods by the neighboring communication apparatuses is set to the own bandwidth guaranteed period.

44. (currently amended) The wireless communication method according to claim 35, wherein~ in the step of issuing the notification indicating the setting of the bandwidth-guaranteed-period, setting step information regarding a bandwidth guaranteed period is obtained from a communication apparatus at another end of a communication, and a period that is not set as

bandwidth guaranteed periods by neighbors of the communication apparatus is set to its own bandwidth guaranteed period.

45.-52.   (cancelled)

53.   (currently amended) A ~~processor~~ having computer program instructions described in a computer-readable format ~~so that processing~~ for carrying out a method of performing a wireless communication operation in an autonomous distributed manner without ~~a relationship of~~ a specific controlling station ~~and a controlled station is executed on a computer system~~, the ~~computer program~~ method comprising:

a ~~bandwidth-guaranteed-period setting step of~~ notifying, within its own communication range, of a setting of a bandwidth guaranteed period in which a bandwidth is guaranteed; and

a ~~communication controlling step of~~ executing a bandwidth-guaranteed communication in response to an arrival of its own bandwidth guaranteed period.

54.   (currently amended) The ~~computer program~~ processor according to claim 53, wherein the method further comprises~~ing~~: ~~a step of~~

storing a bandwidth-guaranteed-period setting request received from another communication apparatus, ~~and~~

wherein, ~~in~~ the step of issuing the notification indicating the setting of the bandwidth-guaranteed-period includes setting ~~step,~~ its own bandwidth guaranteed period ~~is set~~ while avoiding a bandwidth guaranteed period that is already set by another communication apparatus, and

~~in~~ the step of executing bandwidth-guaranteed communication ~~controlling step,~~ does not perform a communication operation ~~is not performed~~ in the bandwidth guaranteed period that is set by another communication apparatus.

55.   (cancelled)

11